FIG. 1

related art

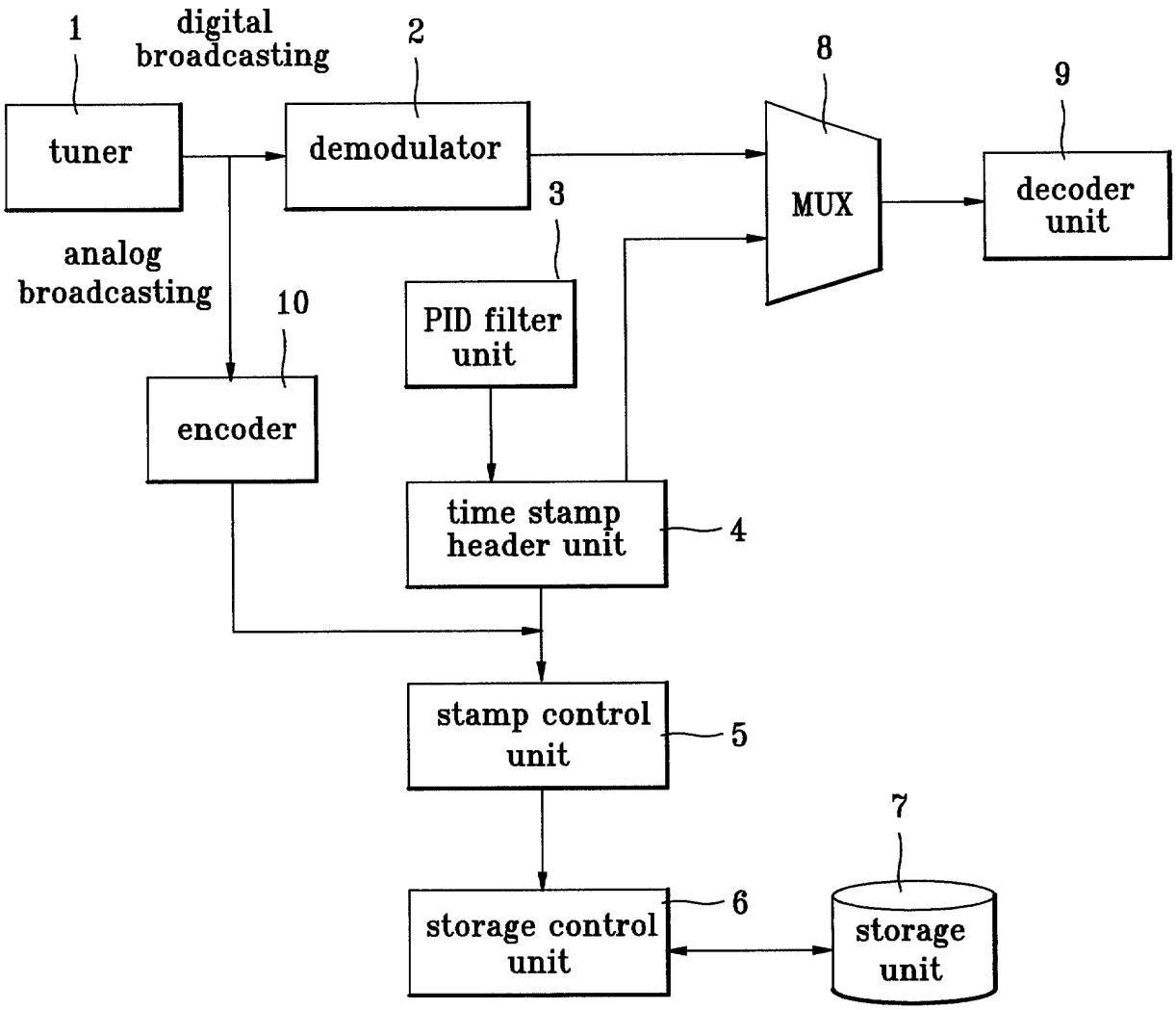


FIG.2

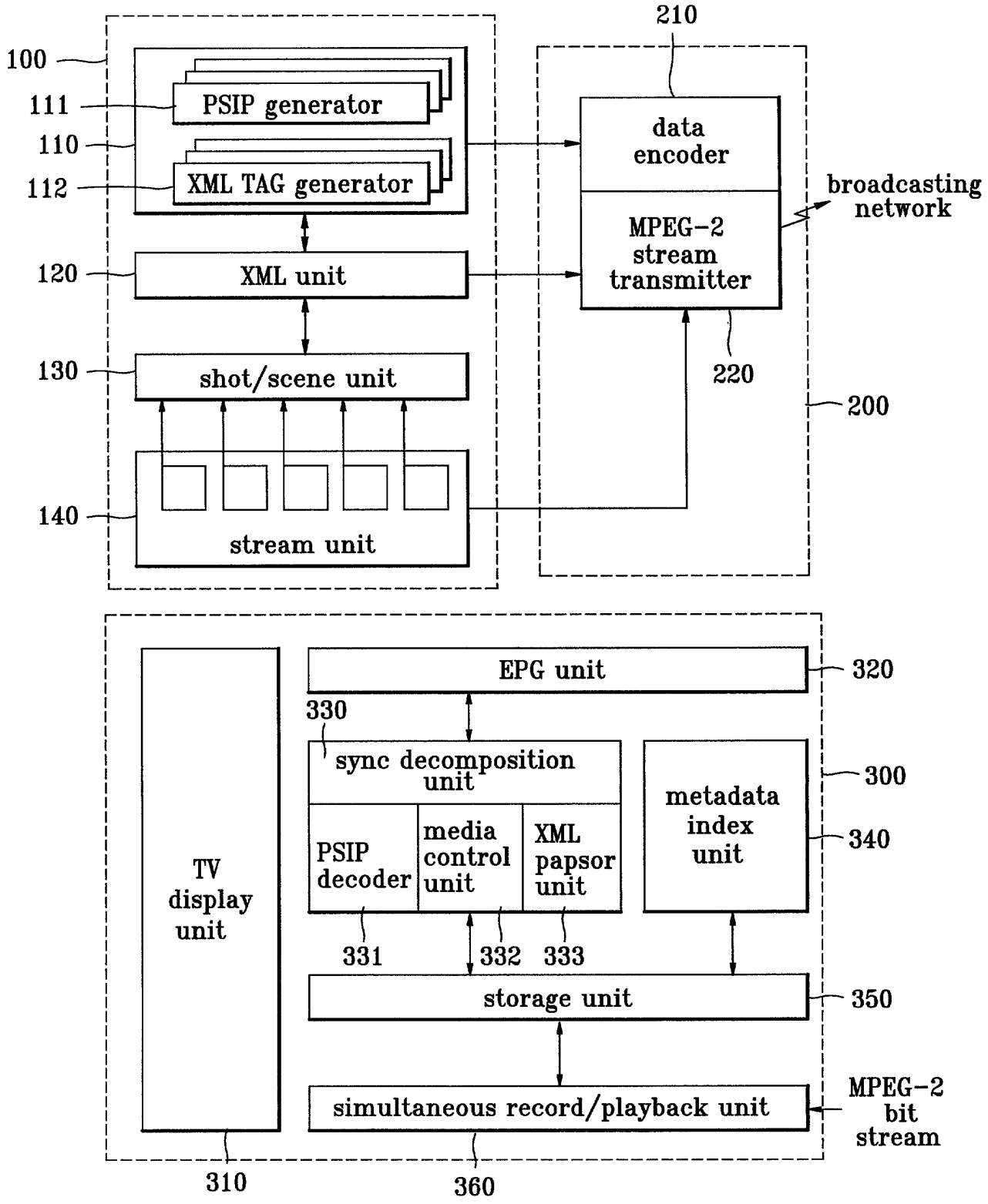

100
111
PSIP generator
110
112
XML TAG generator
120
XML unit
130
shot/scene unit
140
stream unit
210
data encoder
MPEG-2 stream transmitter
220
200
broadcasting network
TV display unit
310
EPG unit
320
330
sync decomposition unit
PSIP decoder
media control unit
XML papsor unit
331
332
333
metadata index unit
340
300
storage unit
350
simultaneous record/playback unit
360
MPEG-2 bit stream

FIG.3

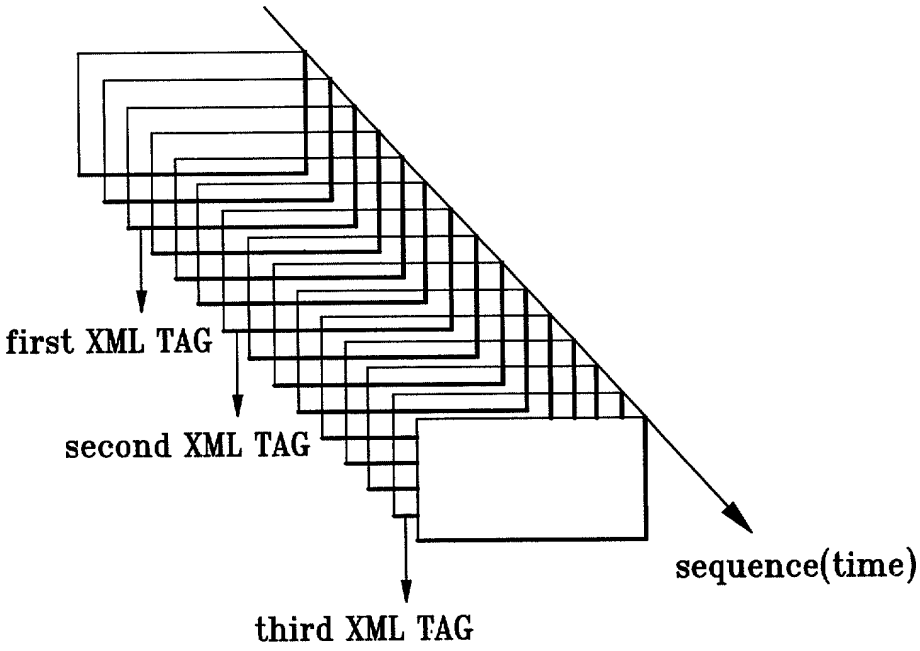


FIG.4a

	shot/scene,GOP offset	Run time(ms)
TAG1 name	1,000	200
TAG2 name	1,000	400
⋮	⋮	⋮
TAGn name	end of stream	n

sequence(time)

FIG.4b

	Run time(ms)
TAG1 name	200
TAG2 name	400
⋮	⋮
TAGn name	n

sequence(time)

FIG.5

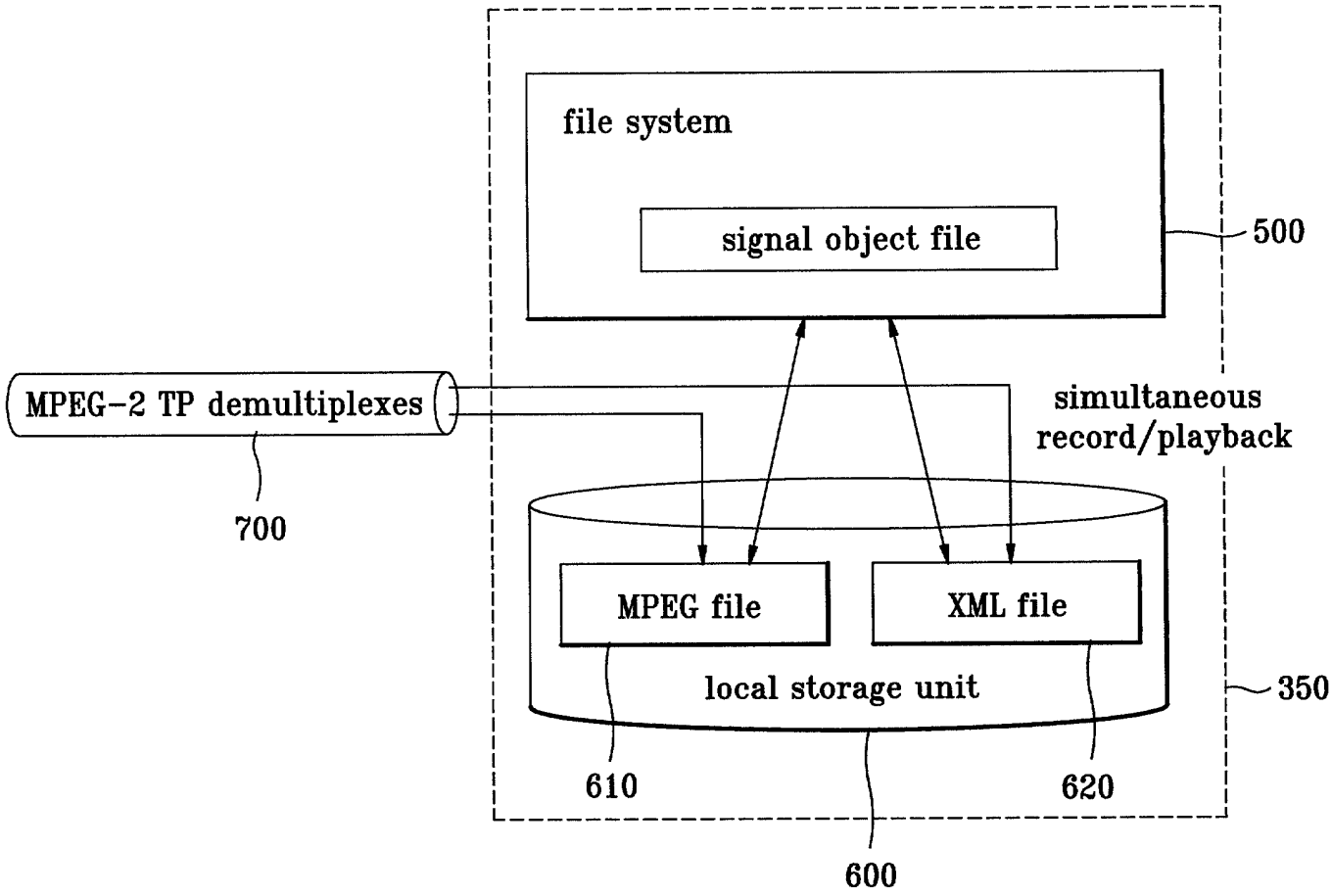

file system
signal object file
500
MPEG-2 TP demultiplexes
700
simultaneous
record/playback
MPEG file
XML file
local storage unit
350
610
620
600

FIG.6

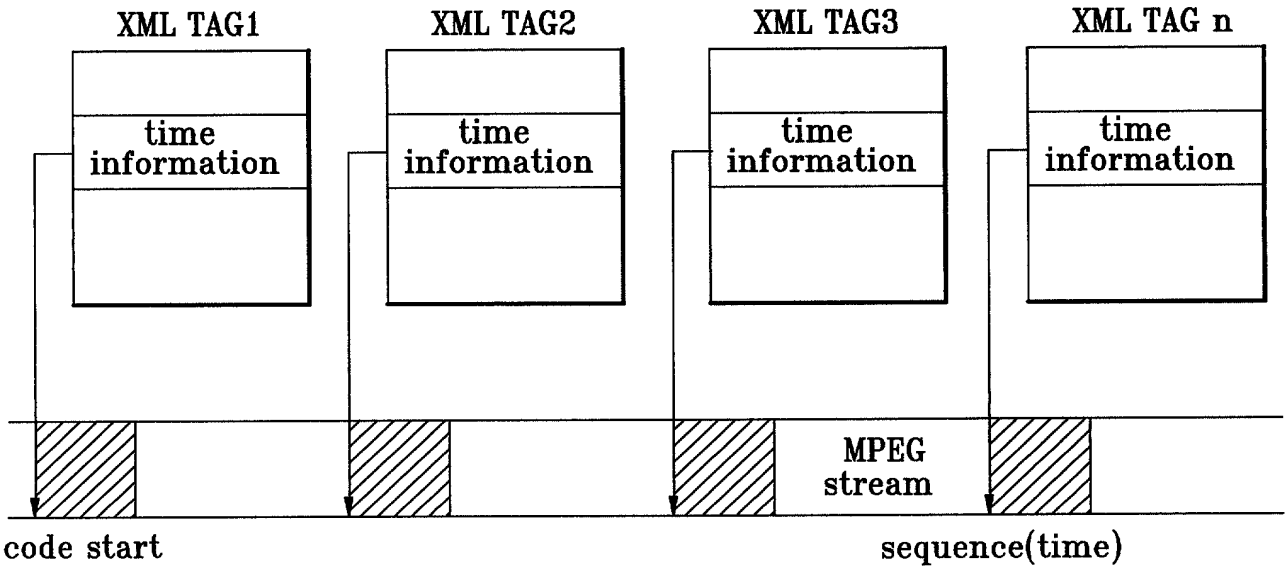
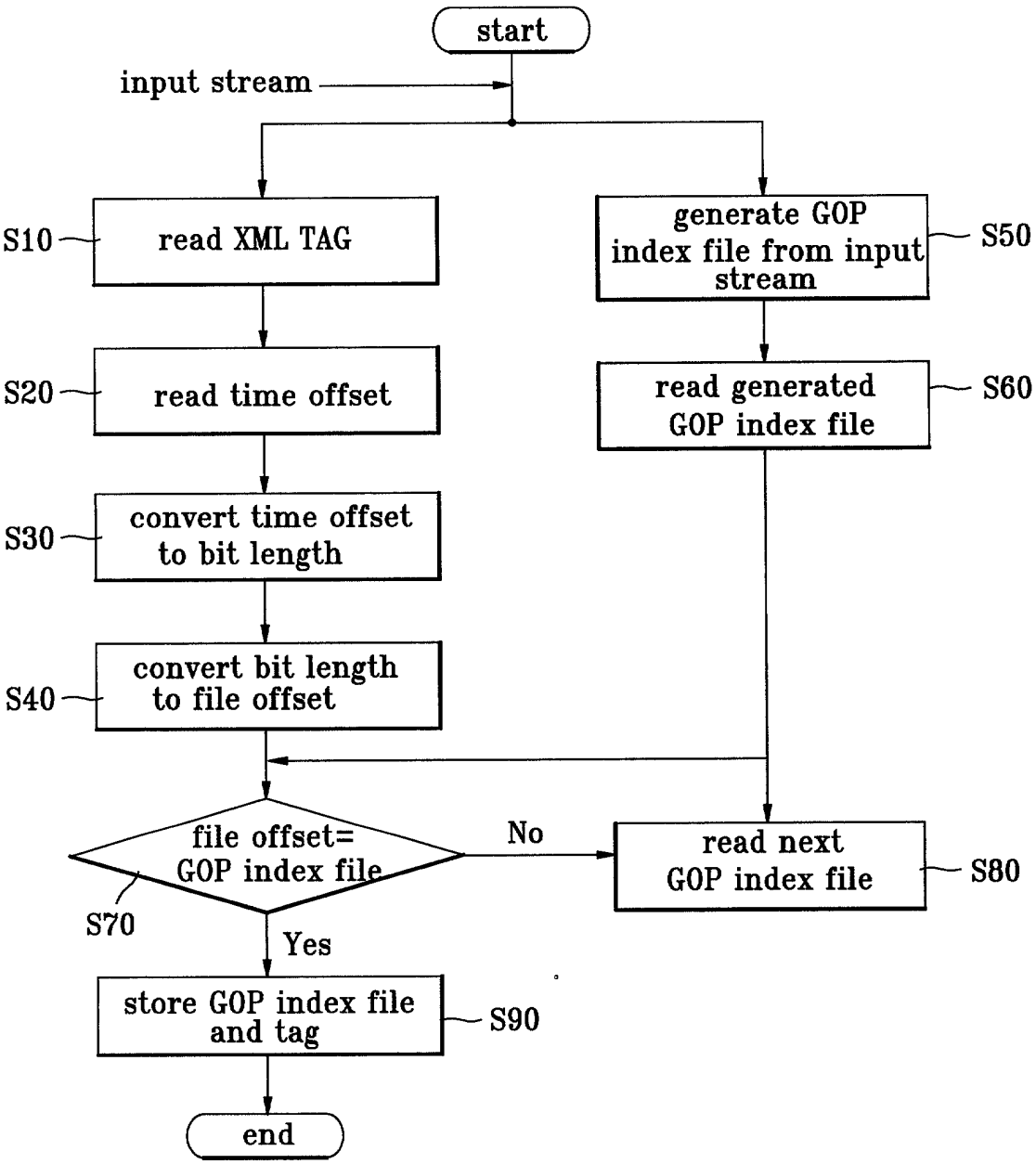

XML TAG1
XML TAG2
XML TAG3
XML TAG n
time information
time information
time information
time information
MPEG stream
code start
sequence(time)

FIG.7


start
input stream
S10
read XML TAG
S20
read time offset
S30
convert time offset to bit length
S40
convert bit length to file offset
S70
file offset= GOP index file
No
Yes
S50
generate GOP index file from input stream
S60
read generated GOP index file
S80
read next GOP index file
S90
store GOP index file and tag
end